

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/FR2004/000150	International filing date (day/month/year) 22.01.2004	Priority date (day/month/year) 24.01.2003
International Patent Classification (IPC) or national classification and IPC C03C3/087, C03C4/02		
Applicant SAINT-GOBAIN GLASS FRANC		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.	
3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).	
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2004/000150

Box No. I

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-11 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 1-14 _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* _____ received by this Authority on _____
- nos.* _____ received by this Authority on _____
- ☐ the drawings:
- sheets _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2004/000150

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	13	YES
	Claims	1-12, 14	NO
Inventive step (IS)	Claims		YES
	Claims	13	NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

1. In the present report, reference is made to the following documents:

D1: US 5 888 917 A

D2: US 3 326 715 A

D3: US 6 475 626 B

2. D1 describes a glass substrate having a soda-lime composition and further including the following dyes (by weight): $\leq 0.08\%$ Fe₂O₃ (total iron), 0 to 150 ppm CoO and/or 0 to 1200 ppm NiO (cf. column 1, lines 47 to 62; column 2, lines 9 to 12; table 3, composition D); preferably, the glass contains 15 to 110 ppm CoO and 100 to 1100 ppm NiO with a NiO/CoO ratio preferably from 5 to 15, the optimum values being between 6 and 12 (cf column 3, line 43 to column 4, line 4). Furthermore, the redox factor (FeO/total iron) can be adjusted to be $\leq 20\%$ (cf. column 2, lines 35 to 47).
- The basic glasses of D1 are grey (cf. tables 1 and 2) since the transmission rates thereof vary very little in the visible range (variation of 3 to 4 %) (cf. definition of a grey glass in the present application, page 4, lines 1 to 4).

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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Despite the addition of NiO and CoO, the glasses remain the same colour, since NiO and CoO absorb complementary colours: the respective effects thereof cancel each other (cf. column 3, line 47 to column 4, line 4). The glasses formed in D1 are therefore grey.

D2 describes glass substrates for glazing coated with an anti-reflective film (cf. column 1, lines 23 to 26).

2.1 INDEPENDENT CLAIM 1

Independent claim 1 is a selection from the broader range described in D1. In principle, it is therefore not novel. To be considered novel, such a claim should satisfy each of the following three criteria (as established by the case-law of the Court of Appeal of the EPO, cf. I.C.4.2.1):

- (a) the sub-range should be narrow;
- (b) the selected sub-range should be sufficiently far removed from the preferred part of the known range (as illustrated for instance in the examples given in the prior art);
- (c) the selected sub-range should not be an arbitrarily chosen specimen from the prior art, i.e. not merely one way of carrying out the prior teaching, but must provide a new invention (purposive selection).

In other words, selection must not be arbitrary

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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but should be such that the properties or possibilities of the chosen range differ from those of the total range.

Criteria (a) and (b) are considered to be satisfied, unlike criterion (c).

Claim 1 is therefore not novel (PCT Article 33(2)).

2.2 CLAIMS 2 TO 11 AND 14

The reasoning set forth with regard to claim 1 applies, *mutatis mutandis*, to claims 2 to 11 and 14.

The subject matter of claims 2 to 11 and 14 is therefore not novel (PCT Article 33(2)).

3 DEPENDENT CLAIM 13

The present application fails to meet the requirements of PCT Article 33(1), since the subject matter of claim 13 does not involve an inventive step as defined by PCT Article 33(3).

The subject matter of claim 13 differs from D1 in that the glass substrate is coated with at least one layer of at least one metal oxide for reflecting infrared radiation.

The problem that the present invention is intended

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

to solve can be considered to be that of enhancing the capability of the glass sheet to reflect infrared radiation.

The solution proposed in claim 13 of the present application is not considered inventive (PCT Article 33(3)) for the following reasons: D3 describes a glass substrate for architectural glazing having multiple coating layers, including a metal layer for reflecting infrared radiation (cf. column 2, lines 64 to 66).

It is therefore obvious for a person skilled in the art to combine D1 and D3 and thereby arrive at the solution proposed in claim 13.